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How to Use the Index

In the Subject Index, pages 1960–1969, each technical paper is listed under a maximum of three appropriate headings. Note the locating number in boldface type preceding each paper title, and use that number to find the paper in the Chronological Index. The Author Index, pages 1970–1972, lists all authors associated with a given technical paper. The locating numbers are identical to those in the Subject Index. The Chronological Index, pages 1973–1982, also lists all papers by their locating numbers. This listing contains titles, authors and their affiliations, and volume, issue number, and page where the paper appeared. It also gives the AIAA paper number, if any, on which the article was based. Comments, Replies, and Errata are listed directly beneath the paper to which they refer. If the paper to which they refer was published prior to 2006, that paper also will appear in both the Subject and Chronological Indexes. Authors of Comments also are listed in the Author Index.

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C06-025 Progressive Certification Process Based on Living Systems Architecture Using Learning Capable Controllers
C06-154 Aircraft Accident Statistics and Knowledge Database: Analyzing Passenger Behavior in Aviation Accidents
C06-171 Proposed Methodology for the Use of Computer Simulation to Enhance Aircraft Evacuation Certification
C06-213 Damage Tolerance Management for Aircraft and Rotorcraft Structural Components
C06-048 Aerodynamic Analysis of a Jet Transport in Windshear Encounter During Landing
C06-062 Solution for Aircraft Anti-Icing System Simulation by a Modified Perturbation Method
C06-026 Piloting Strategies for Controlling a Transport Aircraft After Vertical-Tail Loss
C06-094 Investigation of External Airbags for Rotorcraft Crashworthiness
C06-145 Emergency Flight Planning Applied to Total Loss of Thrust

Simulation

C06-016 Computational Methods for Simulation of Flow Around Helicopter Engine Inlet
C06-137 Study of the Residual Strain in Lap Joints
C06-109 Development and Experimental Validation of a Shipboard Helicopter On-Deck Maneuvering Simulation
C06-001 Accurate Drag Prediction Using Cobalt
C06-008 Aircraft Acceleration Prediction Due to Atmospheric Disturbances with Flight Data Validation
C06-186 New Mixed Method for Unsteady Aerodynamic Force Approximations for Aeroservoelasticity Studies
C06-195 Cable-Supported Sliding Payload Deployment from a Circling Fixed-Wing Aircraft
C06-185 Icing Encounter Flight Simulator
C06-168 Longitudinal Dynamics of a Perching Aircraft
C06-158 Flight Handling Qualities of the Wright Brothers' 1905 Flyer 3
C06-161 Optimal Conceptual Design of Aircraft Fuel Transfer Systems

Stealth

C06-027 Infrared Signatures of Low-Flying Aircraft and Their Rear Fuselage Skin's Emissivity Optimization

STOL/VTOL/STOVL

C06-194 Preliminary Investigation of Arc Wing Pitch Characteristics
C06-128 High-Lift Propulsive Airfoil with Integrated Crossflow Fan
C06-079 Performance and Stability Analysis of a Shrouded-Fan Unmanned Aerial Vehicle

Structural Design (Including Loads)

C06-151 Time-Related Procedure to Structural Column Failure
C06-172 Stability of Cyclically Symmetric Strained Pumpkin Balloons and the Formation of Undesired Equilibria
C06-211 Optimal Scheduling of Control Surfaces on a Flexible Wing to Reduce Induced Drag
C06-089 Stress and Fatigue Analysis of Modified Wing–Fuselage Connector for the Agricultural Aircraft
C06-031 Numerical Method for Cost-Weight Optimization of Stringer-Skin Panels
C06-020 Structural Design Process Improvement Using Evolutionary Finite Element Models

Structural Materials

C06-216 Some Recommendations for Characterization of Composite Panels by Means of Drop Tower Impact Testing

System Effectiveness

C06-174 Two General Methods for Calculating the Aircraft Equivalent Singly Vulnerable Area
C06-136 Aircraft Vulnerable-Area Decomposition Method in the Overlapping Region of Components
C06-143 Solving the Combinatorial Explosion Problem When Calculating the Multiple-Hit Vulnerability of Aircraft

Testing, Flight and Ground

C06-182 Temperature Correction of Pressure-Sensitive Paint for Industrial Wind Tunnel Testing
C06-221 Evaluation of a Three-Degree-of-Freedom Test Rig for Stability Derivative Estimation
C06-080 Aerodynamic Development of a Ground Run-Up Enclosure for Propeller Transport Aircraft
C06-170 Flight Testing a Simple Fix to Lateral Stability Deficiencies
C06-103 Sting Deflection Model for Automatic Image Registration in Wind-Tunnel Testing.
C06-101 Refining Satellite Methods for Pitot-Static Calibration
C06-206 Small Aircraft Transportation System Higher Volume Operations Flight Experiment
C06-041 Drag of Spheroid-Cone Shaped Airship
C06-110 Aerodynamics of Formation Flight

Uninhabited and Unmanned Air Vehicles

C06-181 Conceptual Design and Simulation of a Small Hybrid-Electric Unmanned Aerial Vehicle
C06-012 Active Multiple Winglets for Improved Unmanned-Aerial-Vehicle Performance
C06-037 Multidisciplinary Approach to Intelligent Unmanned-Airborne-Vehicles Mission Planning
C06-227 Cooperative Control of Multiple Unmanned Aerial Vehicles Using the Potential Field Theory
C06-235 Design of Vortex Generator Flow Control in Inlets
C06-079 Performance and Stability Analysis of a Shrouded-Fan Unmanned Aerial Vehicle
C06-035 Challenges Facing Future Micro-Air-Vehicle Development

Vibration

C06-039 Swashplateless Helicopter Rotor System with Trailing-Edge Flaps for Flight and Vibration Controls
C06-112 Development of Mach Scale Rotors with Tailored Composite Coupling for Vibration Reduction

COMPUTING, INFORMATION, AND COMMUNICATION

Artificial Intelligence Systems

C06-028 Aircraft Ice Accretion Prediction Based on Neural Networks
C06-145 Emergency Flight Planning Applied to Total Loss of Thrust
C06-061 Failure-Rate Prediction for De Havilland Dash-8 Tires Employing Neural-Network Technique
C06-208 Flight Segment Identification as a Basis for Pilot Advisory Systems

Avionics Systems

C06-207 A Primary Flight Display Vastly Improves Situational Awareness and Accuracy of Flight
C06-166 Human–Computer Interaction Analysis of Flight Management System Messages

Controls and Displays

C06-101 Refining Satellite Methods for Pitot-Static Calibration

Digital Avionics Systems

C06-208 Flight Segment Identification as a Basis for Pilot Advisory Systems

ENERGY

Fuel Economy

C06-181 Conceptual Design and Simulation of a Small Hybrid-Electric Unmanned Aerial Vehicle

FLIGHT SIMULATOR SYSTEMS

Guidance, Navigation, and Control Systems

C06-238 Effect of Simulator Motion on Pilot Behavior and Perception

Human–Computer Interactions

C06-209 Improving Aircraft Sequencing and Separation at a Small Aircraft Transportation System Airport

Intelligent Systems

C06-048 Aerodynamic Analysis of a Jet Transport in Windshear Encounter During Landing

FLUID DYNAMICS

Aeroacoustics

C06-131 Response Surface Method Optimization of Uniform and Axially Segmented Duct Acoustics Liners
C06-098 Preliminary Evaluation of Noise Reduction Approaches for a Functionally Silent Aircraft
C06-228 Sonic Boom Minimization Using Inverse Design and Probabilistic Acoustic Propagation
C06-231 Frequency Response Model for Branched Pneumatic Sensing Systems
C06-189 Forward Flight Effects on Fan Noise from Supersonic 2-D Inlets
C06-038 Nozzle Orientation Effects and Nonlinear Interactions Between Twin Jets of Complex Geometry
C06-217 Fan Noise Reduction with Increased Bypass Nozzle Area
C06-074 Noise of Dual-Stream Beveled Nozzles at Supercritical Pressure Ratios
C06-073 Elegant Concept for Reduction of Jet Noise from Turbofan Engines
C06-108 Investigating Correlations Between Reynolds-Averaged Flowfields and Noise for Forced Mixed Jets

Boundary-Layer Stability and Transition

C06-188 Experimental Investigation on Forced Boundary-Layer Transition of Axisymmetric Inlet and Numerical Verification
C06-053 Coated Hot-Film Sensors for Transition Detection in Cruise Flight

Computational Fluid Dynamics

C06-002 Small Disturbance Navier-Stokes Method: Efficient Tool for Predicting Unsteady Air Loads
C06-005 Extensions of Overset Unstructured Grids to Multiple Bodies in Contact
C06-124 Analysis of General-Aviation Aircraft Wing Sections with Drooped Leading Edges
C06-105 Numerical Simulation and Physical Characteristics Analysis for Slender Wing Rock
C06-034 Shape Optimization of Stratosphere Airship
C06-045 General Aviation Propeller-Airframe Integration Simulations
C06-146 Numerical Investigation of Flow in an Overexpanded Nozzle with Porous Surfaces
C06-122 Detached-Eddy Simulation of Three Airfoils with Different Stall Onset Mechanisms
C06-129 Viscous-Inviscid Method for Airfoil Analysis and Design for Aviation and Windmills
C06-135 Numerical Simulation of Flare Safe Separation
C06-071 Aero-Optic Performance of an Aircraft Forward-Facing Optical Turret
C06-167 Study of Delayed-Detached Eddy Simulation with Weakly Nonlinear Turbulence Model
C06-232 Aerodyamic Flow Control of an Airfoil with Small Trailing-Edge Strips
C06-178 Unsteady Computational Investigations of Deploying Load Control Microtabs
C06-180 Designing and Testing a Blended Wing Body with Boundary-Layer Ingestion Nacelles
C06-153 Effect of Flap and Slat Riggings on 2-D High-Lift Aerodynamics
C06-152 Verification and Validation of NASA LEWICE 2.2 Icing Software Code
C06-132 Numerical Simulations for Transport Aircraft High-Lift Configurations Using Adaptive Cartesian Grid Methods
C06-083 Numerical Investigation of Low-Aspect-Ratio Wings at Low Reynolds Numbers
C06-159 Error Estimation and Grid Adaptation Using Euler Adjoint Method
C06-087 Aeroelasticity of Nonlinear Structures Using the Corotational Method
C06-162 Validation of Implicit Algorithms for Unsteady Flows Including Moving and Deforming Grids
C06-040 Two-Dimensional Simulation of Dynamic Surface Roughness for Aerodynamic Flow Control
C06-046 Validation of Computations Around High-Lift Configurations by Structured- and Unstructured-Mesh
C06-230 Aerodynamic Design of Complex Configurations with Junctions
C06-009 Wing Drag Prediction and Decomposition
C06-015 Drag Reduction on Gurney Flaps by Three-Dimensional Modifications
C06-085 Rotor Airloads Prediction Using Loose Aerodynamic/Structural Coupling
C06-050 Minimizing Induced Drag with Wing Twist, Computational-Fluid-Dynamics Validation

Hypersonic Flow

C06-192 Drag Reduction by Controlled Base Flow Separation.

Inlet, Nozzle, Diffuser, and Channel Flows

C06-188 Experimental Investigation on Forced Boundary-Layer Transition of Axisymmetric Inlet and Numerical Verification
C06-235 Design of Vortex Generator Flow Control in Inlets
C06-146 Numerical Investigation of Flow in an Overexpanded Nozzle with Porous Surfaces
C06-038 Nozzle Orientation Effects and Nonlinear Interactions Between Twin Jets of Complex Geometry

Jets, Wakes, and Viscid-Inviscid Flow Interactions

C06-081 Probabilistic Two-Phase Aircraft Wake-Vortex Model: Further Development and Assessment
C06-073 Elegant Concept for Reduction of Jet Noise from Turbofan Engines
C06-074 Noise of Dual-Stream Beveled Nozzles at Supercritical Pressure Ratios
C06-160 Additional Aerodynamic Features of Wing-Gurney Flap Flows
C06-156 Computational Investigation and Design Optimization of a Lateral-Jet-Controlled Missile
C06-173 Vortex-Free Flight Corridors for Aircraft Executing Compressed Landing Operations

C06-043 Classical Wing Theory and the Downward Velocity of Vortex Wakes

Separated Flows

C06-192 Drag Reduction by Controlled Base Flow Separation.
C06-167 Study of Delayed-Detached Eddy Simulation with Weakly Nonlinear Turbulence Model
C06-190 Influence of Steady Pitch Rate on 2-D Airfoil Aerodynamic Characteristics at Incidence
C06-243 Interaction of a Streamwise Vortex with a Blade Tip Vortex
C06-122 Detached-Eddy Simulation of Three Airfoils with Different Stall Onset Mechanisms
C06-147 Flowfield Measurements About an Airfoil with Leading-Edge Ice Shapes
C06-125 Hysteresis and Broad Flow Features on a Swept Wing at High Lift
C06-067 Flexible- and Rigid-Wing Micro Air Vehicle: Lift and Drag Comparison
C06-199 Active Boundary-Layer Separation Control on a Multi-Element Airfoil
C06-242 Vortex Interactions Between Chined Forebody and Strake
C06-224 Synthetic Jet Control Effectiveness on Stationary and Pitching Airfoils

Subsonic Flow

C06-046 Validation of Computations Around High-Lift Configurations by Structured- and Unstructured-Mesh
C06-013 Effect of Winglet Dihedral on a Tip Vortex
C06-047 Aerodynamic Loads on Airfoil with Trailing-Edge Flap Pitching with Different Frequencies

Supersonic Flow

C06-038 Nozzle Orientation Effects and Nonlinear Interactions Between Twin Jets of Complex Geometry
C06-212 Non-Gaussian Analysis of Turbulent Boundary Layer Fluctuating Pressure on Aircraft Skin Panels

Transonic Flow

C06-182 Temperature Correction of Pressure-Sensitive Paint for Industrial Wind Tunnel Testing
C06-183 Sensitivity Study of Downwash Weighting Methods for Transonic Aeroelastic Stability Analysis
C06-009 Wing Drag Prediction and Decomposition
C06-180 Designing and Testing a Blended Wing Body with Boundary-Layer Ingestion Nacelles
C06-130 Analysis Tools for the Detection of Intermittent Nonlinear Aeroelastic Phenomena
C06-144 Robust Drag Minimization of Aerodynamic Wings in Engineering Environment

Unsteady Flows

C06-069 Embedded Laser Doppler Velocimetry Boundary-Layer Investigation on a Tilt-Rotor Blade
C06-002 Small Disturbance Navier-Stokes Method: Efficient Tool for Predicting Unsteady Air Loads
C06-106 Static/Dynamic Correction Approach for Reduced-Order Modeling of Unsteady Aerodynamics
C06-105 Numerical Simulation and Physical Characteristics Analysis for Slender Wing Rock
C06-178 Unsteady Computational Investigations of Deploying Load Control Microtabs
C06-047 Aerodynamic Loads on Airfoil with Trailing-Edge Flap Pitching with Different Frequencies
C06-107 Low Speed Wind Tunnel Buffet Testing on the F/A-22
C06-162 Validation of Implicit Algorithms for Unsteady Flows Including Moving and Deforming Grids
C06-183 Sensitivity Study of Downwash Weighting Methods for Transonic Aeroelastic Stability Analysis

Viscous Non-Boundary-Layer Flows

C06-071 Aero-Optic Performance of an Aircraft Forward-Facing Optical Turret

Vortices

C06-155 Effects of Free-Stream Turbulence on Wing-Tip Vortex Formation and Near Field
C06-160 Additional Aerodynamic Features of Wing-Gurney Flap Flows
C06-082 Origin of Exponential Solution for Laminar Decay of Isolated Vortex
C06-051 Near-Field Wing-Tip Vortices and Exponential Vortex Solution
C06-107 Low Speed Wind Tunnel Buffet Testing on the F/A-22
C06-175 Dynamics of Corotating Vortex Filaments Part 1: Analytical Model
C06-173 Vortex-Free Flight Corridors for Aircraft Executing Compressed Landing Operations
C06-043 Classical Wing Theory and the Downward Velocity of Vortex Wakes
C06-198 Simple Model for Turbulent Tip Vortices
C06-191 Effect of Full-Span Gurney Flap Height on Wing Wake Vortex Alleviation
C06-242 Vortex Interactions Between Chined Forebody and Strake
C06-233 Phase-Locked Particle Image Velocimetry Measurements of a Flapping Wing
C06-066 Trailing Vortex Rollup from a Wing Equipped with a Gurney Flap
C06-133 Rolling Moment Characteristics of Supersonic Transport Configurations at High Incidence Angles
C06-084 Oscillating-Wing Tip Vortex with Passive Short-Span Trailing-Edge Flaps
C06-138 Tip Vortex Control via an Active Trailing-Edge Tab
C06-032 Response of a Free-to-Roll Slender Delta Wings to Pitching and Plunging
C06-081 Probabilistic Two-Phase Aircraft Wake-Vortex Model: Further Development and Assessment

GUIDANCE, CONTROL, AND DYNAMICS TECHNOLOGY

Aircraft Dynamics

C06-054 Free-to-Roll Investigation of the Preproduction F/A-18E Powered-Approach Wing Drop
C06-225 Flight Dynamics of Highly Flexible Flying Wings
C06-168 Longitudinal Dynamics of a Perching Aircraft
C06-118 Stability Analysis of a Free Falling Pararotor
C06-005 Extensions of Overset Unstructured Grids to Multiple Bodies in Contact
C06-072 Transonic Free-To-Roll Analysis of the F-35 (Joint Strike Fighter) Aircraft

Aircraft Guidance

C06-145 Emergency Flight Planning Applied to Total Loss of Thrust
C06-093 Monitoring Global Positioning System Satellite Orbit Errors for Aircraft Landing Systems
C06-207 A Primary Flight Display Vastly Improves Situational Awareness and Accuracy of Flight
C06-210 Trajectory Management Concepts For Future Small Aircraft Transportation Systems

Aircraft Stability and Control

C06-229 Effects of Tail Dihedral on Static Stability
C06-158 Flight Handling Qualities of the Wright Brothers' 1905 Flyer 3
C06-221 Evaluation of a Three-Degree-of-Freedom Test Rig for Stability Derivative Estimation
C06-054 Free-to-Roll Investigation of the Preproduction F/A-18E Powered-Approach Wing Drop
C06-164 Stability and Control Characteristics of a New FAR 23 Airplane
C06-056 Active Flutter Control with a V-Stack Piezoelectric Flap Actuator
C06-118 Stability Analysis of a Free Falling Pararotor
C06-169 Effect of Propeller Torque on Minimum-Control Airspeed
C06-240 Multidisciplinary Optimization Framework for Control-Configuration Integration in Aircraft Conceptual Design
C06-088 Unified Aeroelastic and Flight Dynamic Formulation via Rational Function Approximations
C06-170 Flight Testing a Simple Fix to Lateral Stability Deficiencies

Autonomous Vehicles

C06-227 Cooperative Control of Multiple Unmanned Aerial Vehicles Using the Potential Field Theory

Avionics Systems

C06-024 Evaluation of Takeoff Performance Monitoring Algorithm in Large Jet Transport Operations

Control System Design

C06-064 Design, Fabrication, and Performance Test of a Rotary-Wing Micro Aerial Vehicle
C06-017 Load Alleviation for a Tilt-Rotor Aircraft in Airplane Mode
C06-121 On the Formulation of Minimum-State Approximation as a Nonlinear Optimization Problem

Control System Sensors

C06-052 Air Data Computation in Fly-By-Wire Flight-Control Systems
C06-053 Coated Hot-Film Sensors for Transition Detection in Cruise Flight

Flight Displays

C06-185 Icing Encounter Flight Simulator

Flight Mechanics

C06-017 Load Alleviation for a Tilt-Rotor Aircraft in Airplane Mode
C06-072 Transonic Free-To-Roll Analysis of the F-35 (Joint Strike Fighter) Aircraft
C06-169 Effect of Propeller Torque on Minimum-Control Airspeed
C06-149 Preliminary Parametric Study of Gurney Flap Dependencies
C06-008 Aircraft Acceleration Prediction Due to Atmospheric Disturbances with Flight Data Validation

Handling Qualities

C06-238 Effect of Simulator Motion on Pilot Behavior and Perception
C06-054 Free-to-Roll Investigation of the Preproduction F/A-18E Powered-Approach Wing Drop

Information Processing

C06-208 Flight Segment Identification as a Basis for Pilot Advisory Systems

Intelligent Control

C06-025 Progressive Certification Process Based on Living Systems Architecture Using Learning Capable Controllers
C06-010 Flight Envelope Expansion in Landing Phase Using Classic, Intelligent and Adaptive Controllers

Missile Guidance and Control

C06-156 Computational Investigation and Design Optimization of a Lateral-Jet-Controlled Missile

Navigation

C06-093 Monitoring Global Positioning System Satellite Orbit Errors for Aircraft Landing Systems

Optimization Techniques

C06-144 Robust Drag Minimization of Aerodynamic Wings in Engineering Environment
C06-131 Response Surface Method Optimization of Uniform and Axially Segmented Duct Acoustics Liners
C06-100 Robust Airfoil Shape Optimization Using Design For Six Sigma
C06-011 Novel Taguchi-Simulated Annealing Method Applied to Airfoil and Wing Planform Optimization
C06-004 Noise-Minimum Runway-Independent Aircraft Approach Design for Baltimore-Washington International Airport

Redundancy Management

C06-052 Air Data Computation in Fly-By-Wire Flight-Control Systems

Robotics

C06-142 Study of a Multitethered Aerostat System: Experimental Observations and Model Validation

Signal Processing

C06-212 Non-Gaussian Analysis of Turbulent Boundary Layer Fluctuating Pressure on Aircraft Skin Panels

Soft Computing

C06-092 Analysis of Human Pilot Control Inputs Using Neural Network

Structural Control

C06-017 Load Alleviation for a Tilt-Rotor Aircraft in Airplane Mode

System Identification

C06-219 Data Analysis of Phoenix Reusable Launch Vehicle Demonstrator Flight Test

Trajectory Optimization

C06-114 Optimization of Flexible Approach Trajectories Using a Genetic Algorithm
C06-210 Trajectory Management Concepts For Future Small Aircraft Transportation Systems

UAVs

C06-150 Preliminary Flight Tests of a Hinge-Less Roll Control Effecter
C06-037 Multidisciplinary Approach to Intelligent Unmanned-Airborne-Vehicles Mission Planning

INTERDISCIPLINARY TOPICS

Aerospace Technology Utilization

C06-030 Integrated Multidisciplinary Topology Optimization Approach to Adaptive Wing Design

Analytical and Numerical Methods

C06-030 Integrated Multidisciplinary Topology Optimization Approach to Adaptive Wing Design
C06-234 Simulation of the Electroimpulse De-Icing Process of Aircraft Wings
C06-151 Time-Related Procedure to Structural Column Failure
C06-065 New Hybrid Interpolation Method for Motion Transfer in Fluid-Structure Interactions
C06-075 Transonic Airfoil Shape Optimization in Preliminary Design Environment
C06-136 Aircraft Vulnerable-Area Decomposition Method in the Overlapping Region of Components
C06-143 Solving the Combinatorial Explosion Problem When Calculating the Multiple-Hit Vulnerability of Aircraft
C06-028 Aircraft Ice Accretion Prediction Based on Neural Networks
C06-174 Two General Methods for Calculating the Aircraft Equivalent Singly Vulnerable Area
C06-239 Principal Component Regression for Fitting Wing Weight Data of Subsonic Transports

Atmospheric and Space Sciences

C06-177 New Ground Deicing Hazard Associated with Freezing Drizzle Ingestion by Jet Engines

CAD/CAM

C06-096 Automated Scheme Adjustment for Conceptual Aircraft Design and Optimization

Environmental Effects

C06-177 New Ground Deicing Hazard Associated with Freezing Drizzle Ingestion by Jet Engines
C06-081 Probabilistic Two-Phase Aircraft Wake-Vortex Model: Further Development and Assessment

Human Factors

C06-238 Effect of Simulator Motion on Pilot Behavior and Perception
C06-166 Human–Computer Interaction Analysis of Flight Management System Messages
C06-171 Proposed Methodology for the Use of Computer Simulation to Enhance Aircraft Evacuation Certification
C06-154 Aircraft Accident Statistics and Knowledge Database: Analyzing Passenger Behavior in Aviation Accidents
C06-092 Analysis of Human Pilot Control Inputs Using Neural Network

Lasers and Laser Applications

C06-071 Aero-Optic Performance of an Aircraft Forward-Facing Optical Turret
C06-125 Hysteresis and Broad Flow Features on a Swept Wing at High Lift

Multidisciplinary Design Optimization

C06-115 Methodology for Performance Analysis of Aerospace Vehicles Using the Laws of Thermodynamics
C06-020 Structural Design Process Improvement Using Evolutionary Finite Element Models

C06-029 Multidisciplinary Design Optimization for Aeromechanics and Handling Qualities
C06-144 Robust Drag Minimization of Aerodynamic Wings in Engineering Environment
C06-127 Prognostics and Health Management as Design Variable in Air-Vehicle Conceptual Design
C06-031 Numerical Method for Cost-Weight Optimization of Stringer-Skin Panels
C06-240 Multidisciplinary Optimization Framework for Control-Configuration Integration in Aircraft Conceptual Design
C06-184 Sensitivities and Approximations for Aeroservoelastic Shape Optimization with Gust Response Constraints
C06-096 Automated Scheme Adjustment for Conceptual Aircraft Design and Optimization
C06-018 Induced Drag Reduction Using Aeroelastic Tailoring with Adaptive Control Surfaces
C06-055 Unsteady-Aerodynamic Shape Sensitivities for Airplane Aeroservoelastic Configuration Optimization
C06-211 Optimal Scheduling of Control Surfaces on a Flexible Wing to Reduce Induced Drag
C06-187 Bréguet Range Equation?
C06-148 Aeroservoelastic Modeling and Sensitivity Analysis with Strain Actuators
C06-161 Optimal Conceptual Design of Aircraft Fuel Transfer Systems
C06-111 Value-Based Multidisciplinary Optimization for Commercial Aircraft Design and Business Risk Assessment
C06-021 Design-Oriented Structural Model Order Reduction for Strain-Actuated Flight Vehicle Structures
C06-095 Multi-Objective and Multidisciplinary Design Optimization of Supersonic Fighter Wing
C06-030 Integrated Multidisciplinary Topology Optimization Approach to Adaptive Wing Design
C06-179 Joined-Wing Sensor-Craft Configuration Design

Reliability, Maintainability, and Logistics Support

C06-163 Decision Support Approach to Fleet Maintenance Requirements in the Aviation Industry
C06-061 Failure-Rate Prediction for De Havilland Dash-8 Tires Employing Neural-Network Technique

Research Facilities and Instrumentation

C06-103 Sting Deflection Model for Automatic Image Registration in Wind-Tunnel Testing.

Safety

C06-024 Evaluation of Takeoff Performance Monitoring Algorithm in Large Jet Transport Operations
C06-171 Proposed Methodology for the Use of Computer Simulation to Enhance Aircraft Evacuation Certification
C06-028 Aircraft Ice Accretion Prediction Based on Neural Networks
C06-143 Solving the Combinatorial Explosion Problem When Calculating the Multiple-Hit Vulnerability of Aircraft
C06-136 Aircraft Vulnerable-Area Decomposition Method in the Overlapping Region of Components

Sensor Systems

C06-052 Air Data Computation in Fly-By-Wire Flight-Control Systems

LAUNCH VEHICLE AND MISSILE (LV/M) TECHNOLOGY

Aerodynamics

C06-156 Computational Investigation and Design Optimization of a Lateral-Jet-Controlled Missile
C06-219 Data Analysis of Phoenix Reusable Launch Vehicle Demonstrator Flight Test
C06-192 Drag Reduction by Controlled Base Flow Separation.

Launch Vehicle and Sounding Rocket Systems

C06-068 Flight Testing of a New Earth-to-Orbit Air Launch Method

Testing, Flight and Ground

C06-068 Flight Testing of a New Earth-to-Orbit Air Launch Method

PROPULSION

Airbreathing Propulsion

C06-146 Numerical Investigation of Flow in an Overexpanded Nozzle with Porous Surfaces
C06-217 Fan Noise Reduction with Increased Bypass Nozzle Area
C06-128 High-Lift Propulsive Airfoil with Integrated Crossflow Fan
C06-188 Experimental Investigation on Forced Boundary-Layer Transition of Axisymmetric Inlet and Numerical Verification

Electric Propulsion

C06-181 Conceptual Design and Simulation of a Small Hybrid-Electric Unmanned Aerial Vehicle

Engine Materials

C06-218 Simulation of Soft Projectiles Impacting Composite Targets using an Arbitrary Lagrangian-Eulerian Formulation

Engine Performance

C06-177 New Ground Deicing Hazard Associated with Freezing Drizzle Ingestion by Jet Engines

Gas Turbine Engines

C06-163 Decision Support Approach to Fleet Maintenance Requirements in the Aviation Industry

Wind Power

C06-129 Viscous-Inviscid Method for Airfoil Analysis and Design for Aviation and Windmills

REAL-TIME SYSTEMS

Robotic Systems

C06-035 Challenges Facing Future Micro-Air-Vehicle Development

Signal Processing

C06-231 Frequency Response Model for Branched Pneumatic Sensing Systems

SPACE TECHNOLOGY

Global Positioning System

C06-093 Monitoring Global Positioning System Satellite Orbit Errors for Aircraft Landing Systems

STRUCTURAL MECHANICS AND MATERIALS

Aeroelasticity and Control

C06-076 Bifurcation Analysis of Airfoil in Subsonic Flow with Coupled Cubic Restoring Forces
C06-106 Static/Dynamic Correction Approach for Reduced-Order Modeling of Unsteady Aerodynamics
C06-088 Unified Aeroelastic and Flight Dynamic Formulation via Rational Function Approximations
C06-204 Küssner's Function in the Sharp Edged Gust Problem—A Correction
C06-059 Response of Damaged and Undamaged Tailored Extension-Shear-Coupled Composite Panels
C06-021 Design-Oriented Structural Model Order Reduction for Strain-Actuated Flight Vehicle Structures
C06-086 Flutter of High-Speed Civil Transport Flexible Semispan Model: Time Frequency Analysis
C06-225 Flight Dynamics of Highly Flexible Flying Wings
C06-102 Mathematical Modeling for Modal Computations Concerning a Morphable Wing
C06-148 Aeroservoelastic Modeling and Sensitivity Analysis with Strain Actuators

Dynamic Model Analysis

C06-234 Simulation of the Electroimpulse De-Icing Process of Aircraft Wings
C06-142 Study of a Multitethered Aerostat System: Experimental Observations and Model Validation
C06-109 Development and Experimental Validation of a Shipboard Helicopter On-Deck Maneuvering Simulation

Flexible and Active Structures

C06-226 Analysis and Wind Tunnel Testing of a Piezoelectric Tab for Aeroelastic Control Applications
C06-102 Mathematical Modeling for Modal Computations Concerning a Morphable Wing
C06-067 Flexible- and Rigid-Wing Micro Air Vehicle: Lift and Drag Comparison

Structural Composite Materials

C06-218 Simulation of Soft Projectiles Impacting Composite Targets using an Arbitrary Lagrangian-Eulerian Formulation
C06-022 High-Order Modeling and Experimental Validation of Local Effects in Sandwich Beams
C06-059 Response of Damaged and Undamaged Tailored Extension-Shear-Coupled Composite Panels
C06-060 Buckling Analysis and Minimum-Mass Design Procedures for Composite Wing-Box Structures
C06-216 Some Recommendations for Characterization of Composite Panels by Means of Drop Tower Impact Testing
C06-112 Development of Mach Scale Rotors with Tailored Composite Coupling for Vibration Reduction
C06-176 Response of Composite Fuselage Sandwich Side Panels Subjected to Internal Pressure and Axial Tension

Structural Design

C06-176 Response of Composite Fuselage Sandwich Side Panels Subjected to Internal Pressure and Axial Tension
C06-070 Studies of Residual Stress in Single-Row Countersunk Riveted Lap Joints
C06-003 Structural Safety Measures for Airplanes
C06-059 Response of Damaged and Undamaged Tailored Extension-Shear-Coupled Composite Panels
C06-022 High-Order Modeling and Experimental Validation of Local Effects in Sandwich Beams

Structural Durability (Including Fatigue, Fracture, and Environmental Degradation)

C06-117 Nonlinear Response and Fatigue Life of Isotropic Panels Subjected to Nonwhite Noise
C06-089 Stress and Fatigue Analysis of Modified Wing–Fuselage Connector for the Agricultural Aircraft
C06-213 Damage Tolerance Management for Aircraft and Rotorcraft Structural Components
C06-091 Corrosion Fatigue of High-Strength Aircraft Structural Alloys
C06-216 Some Recommendations for Characterization of Composite Panels by Means of Drop Tower Impact Testing
C06-176 Response of Composite Fuselage Sandwich Side Panels Subjected to Internal Pressure and Axial Tension

Structural Dynamics and Characterization

C06-130 Analysis Tools for the Detection of Intermittent Nonlinear Aeroelastic Phenomena
C06-076 Bifurcation Analysis of Airfoil in Subsonic Flow with Coupled Cubic Restoring Forces
C06-094 Investigation of External Airbags for Rotorcraft Crashworthiness
C06-212 Non-Gaussian Analysis of Turbulent Boundary Layer Fluctuating Pressure on Aircraft Skin Panels
C06-139 Establishment of Gun Blast Wave Model and Structural Analysis for Blast Load

Structural Finite Elements

C06-172 Stability of Cyclically Symmetric Strained Pumpkin Balloons and the Formation of Undesired Equilibria
C06-218 Simulation of Soft Projectiles Impacting Composite Targets using an Arbitrary Lagrangian-Eulerian Formulation
C06-087 Aeroelasticity of Nonlinear Structures Using the Corotational Method
C06-070 Studies of Residual Stress in Single-Row Countersunk Riveted Lap Joints
C06-137 Study of the Residual Strain in Lap Joints

Structural Modeling

C06-137 Study of the Residual Strain in Lap Joints
C06-070 Studies of Residual Stress in Single-Row Countersunk Riveted Lap Joints
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